DE VRIES, H. A. 1959. Effects of various warm-up procedures on 100-yards times of competitive swimmers. *Research Quarterly*, **30**, 11-20.

DINTIMAN, G. B. 1974. What research tells the coach about sprinting. Washington: AAHPER.

MILLER, S. J. 1971. Acute and subacute injury. In L. A. Larson (Ed.) *Encyclopedia of sport sciences and medicine*. New York: The Macmillan Company.

O'DONOGHUE, D. H. 1962. Treatment of injuries to athletes. Philadelphia: W. B. Saunders Company.

WILKIE, D. R. 1960. Man as a source of mechanical power. Ergonomics, 3, 1-8.

WILLIAMS, J. G. P. 1962. Sports Medicine. 1st edition. London: Edward Arnold.

THE PSYCHOLOGY OF THE INJURY-PRONE ATHLETE

F. H. SANDERSON, B.Ed., M.A., Ph.D.

Physical Education Department, Liverpool Polytechnic

Competing in sport or the expectation of competing, by the inner conflict it creates, can induce high levels of stress in athletes. This is particularly likely amongst those who are highly driven and psychologically vulnerable. The stress-prone athlete is identified by his emotional vulnerability, easy loss of composure, negative thinking, underlain by various kinds of fears or phobias.

There is in fact evidence of a link between trait anxiety and the incidence of injury. Reilly (1975) in relating personality variables to incidence of injuries in professional soccer, found a positive relationship between apprehensiveness and the number of joint injuries per season. This was tentatively interpreted as evidence of the desirability of commitment in tackles rather than the half-heartedness one might expect from an anxiety-prone athlete.

Various kinds of injury-prone athletes can be identified, with conflict and anxiety being prominent causal factors in almost every case.

Injury Resulting from Counter-Phobia

Typical of this type is the individual who finds the aggression-loaded atmosphere of competitive sport anxiety-inducing and he attempts to counteract the anxiety by meeting it head-on, by being overtly aggressive and fearless. Many individuals in high risk sports such as downhill skiing, boxing and motor racing, are of this type.

Injury as a Sign of Masculinity

An injury-prone type who may have counter-phobic tendencies is the athlete who uses injuries as a testimony to his courage and masculinity. He lacks real confidence, needing the visible signs of battle to confirm his manhood.

Expression of masculinity is one of the motivating forces which produce the injury-prone hero. He takes a martyr's role by continuing to play despite his injury. His sacrifice is accompanied by obvious signs of distress and pain. This serves the dual function of having people admire his courage and also, giving himself a ready-made excuse in case he performs badly.

Injury Resulting from Masochism

The risk-taker may be what Karl Menninger had termed "chronically suicidal". He is possessed of masochistic tendencies as a result of inward-directed hostility, and he achieves satisfaction in injury. This hostility may result from failure to meet unrealistically high standards or may be atonement for the injury he has caused another.

Injury as a Weapon

Conversely, there is another kind of injury-prone athlete who uses injury as a means of punishing another or others in an indirect way. Ogilvie and Tutko (1971) give the example of the reluctant athlete forced to play because of an athletically-frustrated father. By being injured, he can cause his father to feel guilty for pressurising him, he can frustrate his father's displaced aspirations, and he can avoid the undesired competition.

Injury as an Escape

There is the athlete who fears competition so much that he virtually *needs* to be injured, for instance, the "training-room athlete" who gets injured in practice, thereby avoiding competition. He has strong feelings of inferiority but cannot straightforwardly opt out because of his fear of isolation and rejection.

A related type is the compulsive failure-seeker who sees an injury-full life as the best means of maintaining the illusion of his vast potential had he not suffered so much injury.

Psychosomatic Injury

There is the athlete who complains of injury and yet no physical cause can be isolated. A physiotherapist may feel that the complaint has to be assessed incorrectly as his attempts to help are frustrated. It is possible that such an athlete has psychosomatic problems, with the emotional disturbance being reflected in physical symptoms. When the emotional problem is solved, the physical symptoms normally disappear.

Injury as a Concoction

Another type of athlete whose injuries cannot be substantiated physically, is the athlete who concocts injuries for his own ends, for example, to avoid training, for fear of injury, or to cause disruption to a team.

As to treating the kinds of injury-prone athlete described, the greatest asset of the coach, the doctor and the physiotherapist is perceptiveness based on sound knowledge of the individual. Ideally, medical, physical and psychological records should be available to be used by, say, the physiotherapist, to enrich his interaction with the athlete during the treatment phase. If he can establish that he is dealing with a particular kind of injury-prone athlete, then there will be much he can do in terms of lessening the likelihood of future injuries, e.g., by encouraging caution, instilling confidence or, in extreme cases, maybe recommending psychotherapy or advising the athlete's doctor of his suspicions.

Vulnerability profiles could be established on the basis of the known characteristics of the injury-prone athletes. Any athlete could then be checked to assess his degree of vulnerability to injury, thus allowing the possibility of positive injury-prevention.

The lack of confidence often seen in the injury-prone athlete may often be a product of nothing more complex than a real lack of fitness, induced by a lack of proper training per se or by training constraints imposed by previous injury. It is obvious that any individual competing in sports where physical demands are high and injuries are common should be exceptionally fit. It is equally obvious that the physiotherapist and trainer has an essential role to play in preparing the injured athlete's path to maximum fitness. Confidence, one of the keys to success, can only be enhanced by supreme fitness.

The highly motivated athlete presents a special problem in that complete physical fitness is essential if he is to avoid injuries. Any lack of fitness and his high competitiveness will lead him to push beyond a safety margin, and as a result incur injury. Such athletes are prone to becoming permanently weakened, both physically and psychologically.

Physical fitness together with psychological fitness has a liberating effect on the athlete. One often hears the remark that an athlete should know his limitations. It is suggested that the greatest athletes are those who do not know their limitations, but who have the confidence to explore their potential and push back the limits — a confidence born of supreme physical and psychological fitness.

REFERENCES

OGILVIE, B. and TUTKO, T. A. 1971. Problem athletes and how to handle them Pelham, London.

REILLY, T. 1975. An ergonomic evaluation of occupational stress in professional football. Unpublished Doctoral Thesis, Liverpool Polytechnic.